MECHANICAL ENGINEERING

The Journal of The American Society of Mechanical Engineers

INDEX TO VOLUME 58

January–December
1936

Published by
The American Society of Mechanical Engineers
29 West Thirty-Ninth Street, New York, N. Y.

Engineering Lib
Serial

Index to Mechanical Engineering

Volume 58, January–December, 1936

(BR) denotes Book Review, (C) Correspondence, (Ed) Editorial, (S) Survey of Engineering Progress

ABBOTT, ERNEST J.
Brief biography of ... 747
Desired characters of surface finishes (C) 596
Noise problem (C) ... 458
Quieting machinery ... 713

ACCOUNTING MACHINES
Automatic lubrication of (S) ... 121

AERIAL TRANSPORTATION
Maintenance problems of ... 233

AEROCARTOGRAPH
Illustration of ... 156

AERODYNAMICS
Boundary-layer flow (S) ... 246
Fuel motion in furnaces (S) ... 315
Railroad transportation ... 355, (Ed) 344

AERONAUTICS
Bibliography ... 435
Progress in (Ed) ... 277
Review of progress, 1935 .. 431, (S) 246, (C) 596

AERO-PROJECTORS
Zeiss aerotopograph multiplex ... 155

AGETON, RICHARD V.
Brief biography of ... 464
Mechanization of the potash mines in New Mexico ... 418

AGRICULTURE
Population readjustment and ... 239

AIR COMPRESSORS
Estimation of slip in (S) ... 740
Turbine-driven (S) ... 310
Voith hydraulically operated rotary (S) .. 449

AIR CONDITIONING. *See also* REFRIGERATION
Motor vehicles (S) ... 247
Solar energy for ... 369
Turbine-driven compressors for (S) ... 310

AIR CONDITIONING EQUIPMENT
Unit cooler and heat pump (S) ... 247

AIRCRAFT
Automobile engines for (S) ... 116
Mayo composite. *See* AIRPLANES, MILITARY, Bombers

AIRCRAFT ENGINES. *See* AIRPLANE ENGINES

AIR HYGIENE FOUNDATION OF AMERICA, INC.
Formation of ... 138

AIRPLANE DESIGN
Influence on other structures ... 279

AIRPLANE ENGINES
Automobile (S) ... 116
Clerget oil (S) ... 51
Cooling (S) ... 593
Koeller Midget (S) ... 246
Military ... 157, (D) 319
Supercharging (S) ... 117

AIRPLANE PROPELLERS
Crankshafts, vibration of ... 215
Variable-pitch (S) ... 377

AIRPLANES. *See also* BIPLANES; AIRPLANES, MILITARY
Orthoplane (S) ... 846
Stressed-skin construction ... 279

AIRPLANES, MILITARY
Bombers (S) ... 309

AIR PREHEATERS
Developments in ... 551

AIRSCREWS. *See* AIRPLANE PROPELLERS

AIRSHIPS
Nonrigid, safety record of (Ed) ... 210
Report on (Ed) ... 142

ALLEN, CHARLES M.
Discussion on paper by (C) ... 60
Photograph of ... 43

ALLOYS, LIGHT AND ULTRA-LIGHT
Forgeability (S) ... 662

ALLOYS OF IRON RESEARCH COMMITTEE
New appointments to ... 136

ALUMINUM
Corrosion-resistant ... 784
Superpure (S) ... 49

ALUMINUM ALLOYS
Corrosion-resistant ... 784
Hot-shortness of (S) ... 450

ALUMINUM-NICKEL ALLOYS
Cerium addition to (S) ... 122

AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE
Patent procedure, resolution on ... 203

ISSUE	PAGE NUMBERS
January	1–72
February	73–140
March	141–208
April	209–276
May	277–342
June	343–408
July	409–472
August	473–536
September	537–612
October	613–680
November	681–768
December	769–864

AMERICAN ENGINEERING COUNCIL
Editorial on ... 73
News notes 70, 269, 338, 402, 470, 608, 680, 860
Plans of ... 202
Sixteenth annual meeting of ... 134

AMERICAN FOUNDRYMEN'S ASSOCIATION
Safety and hygiene sections organized by 404

AMERICAN GEAR MANUFACTURERS ASSOCIATION
Announcement of convention of ... 208

AMERICAN INSTITUTE OF ELECTRICAL ENGINEERS
Nominations for officers of ... 268

AMERICAN MANAGEMENT ASSOCIATION
Annual conference, plans for ... 678
Industrial relations problems to be discussed by ... 135

AMERICAN SOCIETY FOR TESTING MATERIALS
Annual meeting, Atlantic City, announcement of ... 404
New specifications of ... 764
Officers, 1936–1937 ... 534

AMERICAN SOCIETY OF CIVIL ENGINEERS
Pittsburgh meeting, A.S.M.E. invited to 678

AMERICAN SOCIETY OF HEATING AND VENTILATING ENGINEERS
Officers of elected ... 276

AMERICAN SOCIETY OF MECHANICAL ENGINEERS
Aeronautic Division, progress reports of . 431
Annual meeting (1935), report of ... 37
Annual meeting (1936), announcements of ... 404, 465
Annual meeting (1936), plans for ... 673, 751
Annual meeting (1936), tentative program for ... 752
Annual meeting papers (Ed) ... 681
Applied mechanics meeting, Pittsburgh, plans for ... 337
Applied mechanics meeting, Pittsburgh, program for ... 400
Applied mechanics meeting, Pittsburgh, report of ... 529
Awards for 1936 announced ... 754
Birmingham foundry meeting, report of .. 268
Boiler Code. *See* BOILER CODE
Budget for 1936–1937 ... 531
Business meeting (December, 1935), report of ... 42
By-Laws, amendments of ... 40
Candidates for admission to, indorsement of ... 138
Candidates for membership ... 72, 140, 208, 276, 342, 408, 472, 536, 612, 680, 768, 864
Chicago section dinner dance ... 340
Cleveland meeting, announcement of 403
Code of ethics for engineers ... 758
Cottonseed processing committee, report of ... 206
Council Executive Committee meetings, reports of ... 38, 133, 398, 465, 757
Council meeting, report of ... 531
Council meetings (December, 1935), reports of ... 39
Dallas meeting. *See* Semi-Annual meeting

AMERICAN SOCIETY OF MECHANICAL ENGINEERS (*continued*)
Dallas-to-Mexico tour ... 268, 401
Expositions, policy on ... 466
Finance Committee, William T. Conlon elected vice-chairman of ... 761
Graphic Arts meeting ... 337
Honorary membership, elections to ... 760
Junior awards of ... 43
Local Sections, coming meetings of ... 72, 140, 208, 274, 342, 864
Local Sections Committee, report of Dallas meeting ... 675
Local Sections Group Delegates, permanent organization of ... 37
Machine tool meeting, Pacific-Coast, announcement of ... 202
Meetings scheduled for fall of 1936 ... 403
Members, biographical and professional data on ... 162
Members, deaths of ... 72, 140, 208, 276, 342, 408, 472, 536, 612, 680, 682, 768, 857
Membership List address cards sent out 759
Membership, new grades of ... 40
Members' Page ... (Ed) 769, 856
Members, reinstatement of ... 399
Metropolitan Juniors, September meeting plans ... 612
Metropolitan Section Meeting on Industrial Design, plans for ... 67
News of (Ed) ... 74
Niagara Falls meeting, announcement of 403
Niagara Falls meeting, plans for ... 466
Niagara Falls meeting, program for .. 532, 604
Niagara Falls meeting, report of ... 755
Nominating Committee for 1936–1937 .. 42, 527
Nominating Committee, suggestions to .. 201
Officers, 1936–1937, nominations for ... 527
Officers, 1936–1937, election of ... 760
Oil and gas power meeting, Ann Arbor, announcements of ... 268, 337
Oil and gas power meeting, Ann Arbor, program for ... 400
Oil and gas power meeting, Ann Arbor, report of ... 529
Papers, discussion of (Ed) ... 210
Participation in metal week at Cleveland 854
Pin, use of ... 138
President's Page ... (Ed) 141, 198, 266, 397
Professional divisions report to Council. 199
Publication procedure for papers ... 464
Representation at Rome Technical Education Congress ... 855
Rules, proposed amendments to ... 40
Semi-annual meeting (1936) (Ed.) ... 277
Semi-annual meeting (1936), plans for ... 138, 201, 267, 401
Semi-annual meeting (1936), program for 332
Semi-annual meeting (1936), report of ... 530
Semi-annual meeting (1936), special train to ... 401
Semi-annual meeting, 1937, plans for 757
Student awards of ... 43
Student members (Ed) ... 209
Technical Committee meetings, October, 1936 ... 759, 857
Technical Committee meetings, December, 1935 ... 46
Transactions, papers in ... 72, 140, 208, 276, 342, 408, 472, 536, 612, 680, 768, 864
Treasurer (Erik Oberg), resignation of (Ed) ... 1
Welding-practice symposium, plans for ... 610

A.S.M.E. MEDAL
Presentation of ... 43

A.S.M.E. NEWS ... 672, 751, 854
Printed in Mechanical Engineering (Ed). 613

A.S.M.E.—A.S.T.M.
Committee on Effect of Temperature on Properties of Metals, report of ... 165

A.S.T.M.
Committee Week, announcement of ... 204

A.S.T.M.—A.S.M.E.
Committee on Effect of Temperature on Properties of Metals, report of ... 165

AMERICAN STANDARDS ASSOCIATION
Symbols and Abbreviations, expansion of work on ... 68

AMERICAN WELDING SOCIETY
Evening lecture course in New York area, announcement of ... 858
Miller Medal awarded to Hobart ... 858
Miller Medal awarded to McCune ... 136

ANDERSON, EDMUND ARNOLD
Brief biography of ... 851
Zinc in the chemical industries ... 799
ANDERSON MEDAL
Awarded to Willard ... 206
ANNUAL TABLES OF CONSTANTS
Special price on ... 340
APPLIED MECHANICS, FIFTH INTERNATIONAL CONGRESS
1938 congress, M.I.T., announcement of ... 858
ARMOUR, JAMES W.
Water-cooled underfeed stoker (C) ... 257
ASSOCIATION OF IRON AND STEEL ELECTRICAL ENGINEERS
Change in name of ... 678
Convention announcement ... 468
ATTERBURY, WM. WALLACE
Date of death of ... 63
AUTOGIROS
Direct-take-off (S) ... 846
AUTOMOBILE BRAKES
Duoautomatic hydraulic (S) ... 123
AUTOMOBILE ENGINES
Diesel. *See* DIESEL ENGINES, Cappa two-stroke cycle
Pistons (S) ... 518
Supercharging (S) ... 117
Use in aircraft (S) ... 116
Victor airless-injection (S) ... 123
Wolf airless-injection (S) ... 119
AUTOMOTIVE FUELS
Gasoline alcohol, influence of benzol additions to (S) ... 119
AVIATION
Transport systems, maintenance problems of ... 233
AWARDS
A.S.M.E. *See* A.S.M.E., Awards
Science, book on ... 468

B

BACHA, CHARLES P.
Student award to ... 43
BAILEY, ALEX D.
Photograph of ... 41
BAILEY, E. G.
Brief biography of ... 851
Steamotive ... 771
BAKELITE
High-impact (S) ... 180
BAKER, ELIZABETH FAULKNER
Brief biography of ... 331
Human problems created by labor-saving machinery ... 305
BAKHMETEFF, BORIS A.
Brief biography of ... 668
The Reynolds number ... 625
BALANCING MACHINES
Unbalance, determining and correcting (S) ... 56
BATHE, GREVILLE
Brief biography of ... 199
Oliver Evans, 1755–1819 ... 149
BATT, WILLIAM L.
Brief biography of ... 133
Local Sections to be visited by ... 138
Members' Page, dedication of ... 856
Photograph of ... 37
President's Page ... (Ed) 141, 198, 266, 397
Visit to Western Sections and Student Branches ... 760
Watt—Symbol of the industrial age ... 91
BATTELLE MEMORIAL INSTITUTE
Research-associate plan ... 534
BAUER, H. J.
Furnace bottoms for tapping molten ash (D) ... 388
BEAL, ROBERT W.
Student award to ... 43
BELLOWS
Metallic tubular (S) ... 186
BELT DRIVE
Wearn's autoflex (S) ... 51
BENNETT, J. S.
Discussion on paper by ... 257
BERNHARD, R. K.
Growth of fatigue cracks (C) ... 850
BERRY, C. HAROLD
Discussion on paper by ... 663
BERYLLIUM
Manufacture and properties of (S) ... 117
BIBLIOGRAPHIES
Aeronautics ... 435
Charles Augustin Coulomb ... 620
Marketing research, copies available ... 406
BIBLIOGRAPHIES (*continued*)
Metals corrosion ... 792, 798, 820
Noise abatement ... 723
Power plants ... 561
Quantum statistics ... 504
Respirators ... 176
Wood preservation ... 634
BIOT, M. A.
Hydrostatic boundary forces (C) ... 666
BIPLANES
New form of (S) ... 49
BLAKESLEE, HOBART W.
Hillyer Award to ... 676
BLAST PIPE. *See* LOCOMOTIVES, Blast pipe
BOILER CODE
Interpretations ... 62, 128, 260, 321, 392, 461, 599, 850
Revisions and addenda to ... 63, 260, 321, 393
Unfired Pressure Vessels, proposed revision of ... 667
BOILER FIRING
Pulverized fuel (S) ... 50
BOILER FURNACES
Developments in ... 554
Producer-type (S) ... 453
BOILER PLANTS
Data on (table) ... 552
BOILERS
Doebler high-output sectional-chamber inclined-tube (S) ... 124
Fire-tube, Sinuflo (S) ... 317
Heat transmission in (S) ... 57
High-pressure, Cantieny (S) ... 317
Löffler (S) ... 381
Stoker-fired, electrical precipitation for ... 25
Welding, fusion, rules for ... 331
BOILERS, ELECTRIC
Heating system use ... 451
BOILERS, HIGH-PRESSURE
Safety valves in (S) ... 123
BOILERS, MARINE. *See* MARINE ENGINEERING, Steam propulsion
BOILERS, WATER-TUBE
Baffles (S) ... 254
Naval (S) ... 455
BOILER WATER. *See* FEEDWATER
BOMBERS. *See* AIRPLANES, MILITARY, Bombers
BOOKS RECEIVED
... 64, 131, 196, 264, 328, 395, 462, 524, 600, 670, 749, 853
BOOKS REVIEWED
Administrative proficiency in business ... 462
American agricultural conditions and remedies ... 522
America's capacity to consume ... 177
America's capacity to produce ... 177
Application of statistical methods to industrial standardization and quality control ... 326
Chart of plenty ... 114
Code of preferred practice for graphic presentation: Time series charts ... 748
Consumer cooperation in America. Democracy's way out ... 724
Economic essays in honor of Wesley Clair Mitchell ... 195
Economics and technology ... 591
Economics of transportation ... 670
Elements of Diesel engineering, with questions and answers ... 326
Elements of statistics ... 748
Engineering valuation ... 669
Factory equipment ... 64
Formation of capital ... 177
Freedom of man (Ed) ... 143
Governments of modern Europe ... 844
Graphs: How to make and use them ... 748
Great depression ... 375
Group leadership ... 748
Handbook of engineering fundamentals ... 852
How to protect business ideas ... 462
Hydrotechnicheskiye Siloviye Ustanovki ... 195
Income and economic progress ... 130, 177
Liberal tradition ... 395
Living together in a power age ... 523
Method of freedom ... 114
Nature of the social sciences in relation to objectives of instruction ... 515
Oliver Evans, a chronicle of early American engineering ... 262
People's wants and how to satisfy them ... 462
Plan or no plan ... 114
Practical applications of the punched card method in colleges and universities ... 195
Preparation of engineering reports ... 264
Principles of inland transportation ... 670
Principles of marketing ... 328
Professional engineer ... 600
Psychology in business and industry ... 462
Psychology of dealing with people ... 462
Psychology of human relations for executives ... 462
Public works in prosperity and depression ... 307
BOOKS REVIEWED (*continued*)
Reducing industrial power costs ... 129
Rockets through space ... 523
Social credit ... 35
Social security in the United States ... 447, 462
Toward social security ... 462
Toward stability ... 244
$2500 a year. From scarcity to abundance ... 641
BORING MACHINES
Hammond, hydraulic indexing in (S) ... 122
BOULTON, MATTHEW
Life of ... 80
BREELAND, ALBERT W.
Brief biography of ... 398
Training petroleum workers ... 352
BRIDGES
San Francisco–Oakland Bay ... 7
BROOKINGS INSTITUTION
Reports by ... 177
BRONZE
Electrodeposition of (S) ... 254
BROWN, D. S.
Brief biography of ... 603
Superposed power station ... 585
BUCKLAND, B. O.
Steam-turbine testing (C) ... 663
BURBANK, EDWARD W.
Biography of ... 528
Photograph of ... 526
BURDELL, EDWIN S.
Brief biography of ... 525
Nature of the social sciences (BR) ... 515
BUSH, VANNEVAR
Lamme Medal awarded to ... 274
BUSINESS
1935 census of ... 136
BUSINESS CYCLES
Public works and ... 307

C

CALDWELL, W. E.
Furnace bottoms for tapping molten ash (D) ... 389
CALORIMETERS
Gas ... 225
CAMERAS
Aerial ... 152
CARLTON, J. R.
Steam-turbine testing (C) ... 664
CARNEGIE CORPORATION
Grant to E.C.P.D. (Ed) ... 770
CASE-HARDENING
Iron and iron alloys by beryllium (S) ... 184
CASTINGS
Steel, suggestions for research on (S) ... 53
CAST IRON
Aluminum (S) ... 53
Corrosion-resistant ... 803
Die casting of (S) ... 450
CAVITATION. *See* HYDRAULICS
CENTRAL HEATING PLANTS
Washington, D. C., electrical precipitators at ... 25, (C) 259
CERAMIC MATERIALS
Microporite (S) ... 661
CERIUM
Use in a light alloy (S) ... 122
CHAMPSAUR, NORBERT
Aeronautics, review of (C) ... 596
CHARLES T. MAIN AWARD
Presentation of ... 43
CHEMICAL INDUSTRIES
Corrosion-resistant metals for ... 799, 803, 810
CHRISTIE, A. G.
Brief biography of ... 603
Development and performance of American power plants ... 539
CHURCH, E. F., JR.
Steam-turbine testing (C) ... 663
CINDER CATCHERS
Electrical precipitation ... 25
CINDERS
Electrical precipitation (C) ... 259
CLARK, A. B.
Furnace bottoms for tapping molten ash (D) ... 392
COAL
Grindability by ball-mill method (S) ... 377
Grindability of (S) ... 317
Resistance to grinding of (S) ... 180
Underground gasification of (S) ... 847
Utilization course at University of Illinois ... 406

COAL AND ASH HANDLING
Developments in ... 546

COAL DUST
Fusain in (S) ... 312

COAL TAR
Bituminous, use as Diesel-engine fuel (S) 119

CODE OF ETHICS FOR ENGINEERS
Provisions of ... 758

COKE BREEZE
Firing of ... 50

COLLES, GEORGE W.
Labor and electrification problems (C) ... 520

COMPRESSORS. *See* AIR COMPRESSORS

CONCRETE AGGREGATES
Lightweight (S) ... 517

CONDENSATION
Heat transfer in ... 643, 729, 845

CONDENSERS, STEAM
Developments in ... 559

CONDIT, KENNETH H.
Biography of ... 528
Photograph of ... 526

CONE, H. I.
Elected honorary member of A.S.M.E. ... 760

CONNECTING RODS
Aluminum (D) ... 458
Aluminum, for freight locomotives ... 169

COOK, WARREN A.
Brief biography of ... 133
Engineering control of occupational-disease hazard ... 105

COOLEY, MORTIMER E.
Elected honorary member of the American Society of Civil Engineers ... 136
Michigan bridge named for ... 66
Photograph of ... 66

COPPER
Corrosion-resistant ... 809

COPPER ALLOYS
Corrosion-resistant ... 809

CORROSION. *See also* METALS, CORROSION-RESISTANT
Duraspray rust-proofing process (S) ... 116

CORWITH PLANT
Engineers visit to ... 206

COTTON GIN
Inventor of (C) ... 386

COTTONSEED
Mechanical processing of, report on ... 206

COUCH, H. H.
Brief biography of ... 267
Propeller crankshaft-vibration problems. 215

COULOMB, CHARLES AUGUSTIN
Life and works of ... 615

CRITCHETT, J. H.
Brief biography of ... 852
Corrosion-resistant stainless steels and irons ... 823

CROSS, FRANK CLAY
Key to economic progress (BR) ... 130

D

DAMS
Wheeler, turbine for (S) ... 189

DAVIES, C. E.
Visit to sections and branches in Southeast ... 761

DEFLECTIONS
Flexural and shear of metal spars (S) ... 592

DE FOREST, A. V.
Discussion on paper by ... 850

DEPRECIATION
Special cases in ... 638

DICKEY, PAUL S.
Brief biography of ... 851
Steamotive ... 771

DIE CASTING
Cast iron (S) ... 450

DIEDERICHS, HERMAN
Elected dean, College of Engineering, Cornell University ... 408

DIES
Temporary (S) ... 183

DIESEL ENGINEERING
Instruction in ... 635

DIESEL ENGINES
Blower-scavenging (S) ... 51
Cappa two-stroke-cycle (S) ... 314
Combustion gas dissociation in (S) ... 120
Compression-ignition, design of ... 286
Compression losses in smaller two-stroke-cycle (S) ... 181
Developments in ... 541

DIESEL ENGINES (*continued*)
Gasoline injection and spark-plug ignition tests (S) ... 248
High-speed, bituminous-coal tar as fuel in (S) ... 119
Insurance and ... 406

DISEASES
Occupational, engineering control of ... 105
Occupational, legislation on ... 103

DISTRIBUTION
Production and (C) ... 521

DIX, EDGAR H., JR.
Aluminum and its alloys ... 784
Brief biography of ... 851

DORNBROOK, F. L.
Brief biography of ... 747
Port Washington Plant, Milwaukee Electric Railway and Light Company ... 697

DOTY, PAUL
Photograph of ... 41

DOW, ALEX
Elected honorary member of A.S.M.E. ... 760

DOWNIE SMITH, J. F.
Rounded-approach orifices (C) ... 256

DREDGES
Diesel "Jewett" (S) ... 120

DREWRY, M. K.
Furnace bottoms for tapping molten ash (D) ... 392

DRIERS
Vacuum (S) ... 56

DRINKER, PHILIP
Brief biography of ... 199
Uses and limitations of respiratory protective equipment ... 171

DUDLEY, S. W.
Appointed dean, Yale School of Engineering ... 408
Biography of ... 528
Photograph of ... 526

DUDLEY, WILLIAM LYLE
Photograph of ... 41

DUBAM, A. E.
Water-cooled underfeed stoker (C) ... 257

DURAND, WILLIAM F.
John Fritz Medal presented to ... 43, 68
Photograph of ... 38

DUST COLLECTORS
Modern (C) ... 127

DUST PRECIPITATION
Power plants ... 25

DUST PROTECTION
Respirators ... 171

DUSTS
Determination of composition of (S) ... 456

DUVALL, WILLIAM G.
Brief biography of ... 525
Machine interference ... 512

E

ECONOMIC PERFORMANCE
Planning for ... 631

ECONOMICS
Reviews of books on ... 35, 114
Social-credit concept (D) ... 320

ECONOMIZERS
Developments in ... 551
Gilled-tube (S) ... 185

EGLI, ADOLF
Flow through orifices in series (C) ... 745
Steam-turbine testing (C) ... 664

EIDMANN, FRANK L.
Engineering fundamentals (BR) ... 852

ELECTRICAL MACHINERY
Rotating, standards for ... 274, 406

ELECTRIC BOILERS. *See* BOILERS, ELECTRIC

ELECTRIC CURRENT, ALTERNATING
Fifty years of (Ed) ... 209

ELECTRIC FURNACES
Heating element for ... 846

ELECTRIC MOTORS
High-frequency current for high-speed (S) ... 116

ELECTRIC TRANSFORMERS
Stationary for alternating or direct current (S) ... 449

ELECTRIC UNITS
Practical absolute system of ... 68

ELECTRODEPOSITION
Bronze (S) ... 254

ELECTROGRAPHY
Electrostatic recording by (S) ... 125

ELLENWOOD, FRANK O.
Steam-turbine testing (C) ... 663

EMISSIVITY
Refractory materials ... 291

EMPLOYEES
Technological changes and ... 302

EMPLOYMENT
Recent graduates (Ed) ... 209

ENGELBRECHT, J. H.
A.S.M.E. representative, Mid-Continent office ... 340

"ENGINEER"
Use of term (C) ... 594

ENGINEERING
Appeals for papers on (E) ... 278

ENGINEERING EDUCATION
Diesel instruction ... 635
Research workers vs. industrial leaders ... 230, (C) 386

ENGINEERING FOUNDATION
"Platform" ... 467
Officers elected ... 859
Projects ... 610
Welding-research committee meeting, report of ... 612

ENGINEERING HISTORY
Division on organized ... 760

ENGINEERING INSTITUTE OF CANADA
Engineering consolidation discussed by ... 204

ENGINEERING LITERATURE
Requested for New York State Prisons ... 136

ENGINEERING MATERIALS
High-impact bakelite (S) ... 180
Plaskon (S) ... 116

ENGINEERING ORGANIZATIONS
United States, pamphlet on ... 768

ENGINEERING PROGRESS
... 49, 116, 179, 246, 309, 377, 449, 517, 592, 661, 740, 846

ENGINEERS
Education of ... 505, (E) 473, (C) 743
Licensing examinations, New York State 340
Local meeting places of ... 140
Opportunity in U. S. Navy ... 525
Philosophy and (Ed) ... 143
Social responsibilities of ... 475, (C) 594
Status in Indiana (Ed) ... 74
Use of term (C) ... 521

ENGINEERS' COUNCIL FOR PROFESSIONAL DEVELOPMENT
Carnegie Foundation grant to (Ed) ... 770
Committee on Student Selection and Guidance, report of ... 67
Cooperation with Providence Engineering Society (Ed) ... 410
Engineering curricula accredited ... 762
Fourth annual meeting, report of ... 763
Guidance activity in Detroit (Ed) ... 473
Inspection and accrediting of engineering colleges begun by ... 135
Progress of (Ed) ... 681
Report of ... 270

"ENGINEERS' DAY"
Cleveland, plans for ... 408

ENGINES. *See also* AIRPLANE ENGINES; DIESEL ENGINES; INTERNAL-COMBUSTION ENGINES
Compression-ignition (S) ... 248
Supercharging (S) ... 117

ENNIS, WILLIAM D.
Appointed treasurer of A.S.M.E. ... 42
Brief biography of ... 668
Photograph of ... 44
Special cases in depreciation ... 638

ENTHALPY
Use of term recommended ... 532

EVANS, OLIVER
Life of ... 149

EVAPORATION
Heat transfer in ... 643
Liquids, heat transfer in (S) ... 59

F

"FACTORY"
Issue on industry (Ed) ... 614

FATIGUE CRACKS
Growth of ... 850

FATIGUE, INDUSTRIAL. *See* INDUSTRY, Physiological efficiency

FEDERAL AVIATION COMMISSION
Report of (Ed) ... 142

FEDERAL HOUSING ADMINISTRATION
Modernization booklet distributed by ... 136

FEEDWATER
Solid matter in, effect on foaming and priming ... 372, (D) 746

FERRIS, JOHN P.
Brief biography of ... 267
Industry, agriculture, and population readjustment ... 239
Protection of agricultural land (C) ... 849

FINISHING. *See* MACHINE SHOP PRACTICE

FISKE, D. L.
A.S.R.E. representative at International Congress ... 340

FLANDERS, RALPH E.
New pioneers on a new frontier ... 3
Photograph of ... 38
Platform for America (Ed) ... 343
Presidential address by ... 3
Protection of agricultural land (C) ... 849
Towne lecture by ... 3

FLOW OF FLUIDS
Orifices, two in series ... 479, (D) 744

FLOW OF METALS
Hele-Shaw apparatus for investigation of (S) ... 58

FLUE GASES
Dust removal from ... 555

FOULK, C. W.
Brief biography of ... 398
Discussion on paper by ... 746
Suspended solids in foaming and priming of boiler water ... 372

FOUNDRY PRACTICE
Continuous pouring of Ford cylinder blocks (S) ... 180

FRANKLIN INSTITUTE
Medals conferred by ... 408

FRANKLIN MEDAL
Awarded to Jewett and Kettering ... 340

FREE, E. E.
Photograph of ... 43

FREEMAN, HAROLD A.
Brief biography of ... 525
Capitalism—the way out for whom? ... 244
Machine interference ... 514

FREEMAN, RALPH E.
Economics and technology (BR) ... 591
Peaceful revolution (BR) ... 724

FRENCH, DUDLEY K.
Suspended solids in foaming and priming (C) ... 746

FREUND, CLEMENT J.
Brief biography of ... 267
Leadership—or scientific scholarship? ... 230

FRITZ, L. G.
Air-line engineering and maintenance ... 233
Brief biography of ... 267

FRITZ MEDAL. *See* JOHN FRITZ MEDAL

FROCHT, MAX M.
Brief biography of ... 525
Photoelastic studies in stress concentration ... 485

FUELS
Colloidal (S) ... 450
Progress in, 1935 ... 95
Wood, burning tests of (S) ... 180

FURNACES
Slag-tap, combustion of pulverized coal in ... 30, (D) 387

FUSAIN
Recovery from coal dust (S) ... 312

G

GADGETS
Perfect (Ed) ... 144

GAGING
Precision in (Ed) ... 409

GANTT MEDAL
Award to Morris E. Leeds ... 466

GAS ENGINES
Governors (S) ... 378

GASOLINE
Alcohol blends. *See* AUTOMOTIVE FUELS, Gasoline-alcohol

GASOLINE, SYNTHETIC
Belgium and France (S) ... 377

GAS WELDING. *See* OXYACETYLENE WELDING

GEAR BOXES
Cotal electrically controlled (S) ... 123

GEAR DRIVES
Crofts electromechanical variable-speed (S) ... 185

GEARING
Change-speed (S) ... 182

GEARS
Milling of helicoid (S) ... 53
Noise in, causes and corrections ... 423

GIBSON, GEO. H.
Social security (C) ... 594

GIBSON, N. R.
Appointment to N. Y. State Board of Examiners ... 470

GILBRETH, LILLIAN M.
Brief biography of ... 331
Place of skill in industry ... 303

GLASS
Fibrous (S) ... 450

GLASS INDUSTRY
Machine age in (S) ... 125

GOVERNORS
Steam-turbine (S) ... 316

GRAPHIC ARTS TECHNICAL CONFERENCE
Announcement of ... 272
Program for ... 337

GREEN, WILSON P.
Air conditioning by sun ... 369
Brief biography of ... 398

GREENE, CARL F.
Brief biography of ... 331
Stressed-skin construction ... 279

GROB, JOHN J.
Electrical precipitation of cinders (C) ... 259
Steam-turbine testing (C) ... 664

GUNDERSON, L. O.
Suspended solids in foaming and priming (C) ... 746

GUTLEBEN, DANIEL
Brief biography of ... 603
Operating experiences in a sugar-refinery steam plant ... 577

GUTMANN, I.
Hydroelectric power plants (BR) ... 195

GYROPLANES
Brequet (S) ... 449

H

HADER, JOHN J.
Group leadership (BR) ... 748

HAGGARD, HOWARD W.
Brief biography of ... 331
Work and fatigue ... 298

HALL, JAMES A.
Biography of ... 527
Obituary of ... 857
Photograph of ... 526

HALL, PETER P. G.
Edward Longstreth Medal awarded to ... 408

HAMILTON, W. A.
Air-line engineering and maintenance ... 233
Brief biography of ... 267

HAMMOND, JOHN HAYS
Empire builder (Ed) ... 409

HAMMOND, H. P.
Graduate engineering study (C) ... 743

HARDIE, P. H.
Steam-turbine testing (C) ... 664

HARKINS, H. DRAKE
Furnace bottoms for tapping molten ash (D) ... 391
Reducing industrial power costs (BR) ... 129

HARRIS, HARRY E.
Misuse of term engineer (C) ... 521
Standard specifications for lubricants (C) 60

HATCH, THEODORE
Brief biography of ... 133
Fundamental factors in design of exhaust systems ... 109

HEAT AND THERMODYNAMICS
International conference on letter symbols ... 764

HEATING ELEMENTS
New type of (S) ... 846

HEAT INSULATING MATERIALS
Metal sheet (C) ... 190

HEAT TRANSFER
Evaporation and condensation ... 643, 729, 845
Prandtl equation for, new forms of ... 457

HEAT TRANSMISSION
Boilers (S) ... 57
Emissivities of refractory materials ... 291
Film coefficients in (S) ... 384

HECHLER, F. G.
Brief biography of ... 668
Diesel-engineering instruction ... 635

HEDBERG, C. W.
Brief biography of ... 65
Discussion on paper by ... 259
Electrical precipitation for stoker-fired boilers ... 25

HEILMAN, R. H.
Brief biography of ... 331
Emissivities of refractory materials ... 291

HELICOIDS
Cutters for milling (S) ... 53

HELL GATE
Men and machines at (Ed) ... 141

HERBECK, C. J.
Discussion on paper by ... 257

HERRON, JAMES H.
Biography of ... 527
Photograph of ... 526

HERSCHEL, CLEMENS
Letter on Niagara Falls power development (C) ... 743

HERSEY, MAYO DYER
Louis Edward Levy Medal awarded to ... 408

HIERS, GEORGE O.
Brief biography of ... 851
Corrosion-resistant lead equipment ... 793

HILLYER AWARD
Presentation to Hobart W. Blakeslee ... 676

HIRSHFELD, C. F.
Brief biography of ... 199, 525
Engineer of today and tomorrow ... 475
Social security ... 145

HOBART, HENRY METCALF
Miller Medal awarded to ... 858

HODGKINSON, FRANCIS
Brief biography of ... 747
Steam turbine in the United States ... 683
Steam-turbine testing (C) ... 663

HOLLISTER, S. C.
Brief biography of ... 668
Life and works of Charles Augustin Coulomb ... 615

HOLSINGER, J. V.
Statistics (Br) ... 748

HOOD, O. P.
Retirement from U. S. Bureau of Mines ... 610

HOOPER, LESLIE J.
Discussion on paper by (C) ... 60

HOOVER MEDAL
Award to Ambrose Swasey announced ... 754

HOT WATER
Pumping of ... 53

HOUSING
Fabricated (C) ... 127

HOWELL, A. C.
Report writing (BR) ... 264

HUMAN RELATIONS
Yale—M.I.T. contest ... 460

HUNTER, E. E.
Furnace bottoms for tapping molten ash (D) ... 387

HUNTER, JOHN A.
Photograph of ... 41

HYDRAULIC ENGINEERING. *See* HYDRAULICS

HYDRAULIC POWER
Progress in, 1935 ... 95

HYDRAULICS
Cavitation and surface tension (S) ... 741

HYDROELECTRIC PLANTS
United States and Canada (Table) ... 541

I

INDIANA
Engineers' status in (Ed) ... 74

INDUSTRIAL RELATIONS CONFERENCE
Announcement of ... 468

INDUSTRY
Helping cause of (Ed) ... 614
Physiological efficiency in ... 298
Population readjustment and ... 239
Skill in ... 303

INGRAHAM, OLIN
Brief biography of ... 331
Public works and business cycle ... 307

INSTITUTE OF PHYSICS
Anniversary meeting, announcement of ... 678

INSULATING MATERIALS. *See* HEAT INSULATING MATERIALS

INSURANCE
Rates on Diesel engines ... 406

INTERNAL-COMBUSTION ENGINEERING
Investigation of combustion and working (S) ... 661

INTERNAL-COMBUSTION ENGINES. *See also* DIESEL ENGINES
Bristol wobble-plate (S) ... 312
Combustion gas dissociation in (S) ... 120
Combustion of heavy fuel oil in (S) ... 592

Compression-ignition problems in (S).... 379
Explosion-type, vibratory process accompanying combustion in (S)..... 378
Indicators..... 283
Scavenging of two-stroke-cycle carburetor engines (S)..... 119
Supercharging (S)..... 117
Vaporization of lubricating oils for (S)... 847

INTERNAL-COMBUSTION TURBINES
Trumpler (S)..... 51

INTERNATIONAL STANDARDS ASSOCIATION
Rules for measurement of flow of fluids.. 136

INVENTORS
Assistance to (S)..... 593

IRON AND STEEL ENGINEERS
Conference, announcement of..... 268

ISENBURGER, HERBERT R.
Brief biography of..... 464
Radiographic inspection of welded refinery requipment..... 442

ISOLATION
An end to (Ed)..... 343

J

JACOBUS, D. S.
Morehead Medal award to..... 855

JAKOB, MAX
Brief biography of.....668, 747
Heat transfer in evaporation and condensation.....643, 729
Lectures, schedule of..... 340

JAMES WATT
Bust presented to A.S.M.E. (Ed)..... 73

JEWETT, FRANK B.
Franklin Medal awarded to.....340, 408

JOHN FRITZ MEDAL
Presentation of..... 43

JOHNS HOPKINS UNIVERSITY
Metals in engineering practice, public lectures on..... 206

JOINTS
Adhesives for (S)..... 592
Welded, forgeability of (S)..... 126

JONES, TUDOR
Social-credit concept (C)..... 320

JOURNAL OF APPLIED MECHANICS
Contributors to fund for..... 274

JUNIOR ENGINEERS
Providence organization (Ed)..... 410

JUNIOR MEMBERS
Papers by (E)..... 343

JUNIOR GROUP DINNER
Metropolitan Student Branch representatives guests at..... 676

K

KARAPETOFF, VLADIMIR
Bose's quantum statistics applied to Planck's formula for thermal radiation 490
Brief biography of..... 525

KARELITZ, GEORGE B.
Photoelastic materials (C)..... 193

KEENAN'S STEAM TABLES
International Conference Table changes to be applied to..... 206

KEITH, RAFAEL W.
Brief biography of..... 267
New gas calorimeter..... 225

KELLER, EMIL E.
Brief biography of..... 747
Steam turbine in the United States..... 683

KELLEY, GEORGE W.
Marketing (BR)..... 328

KENT, ROBERT T.
Hutte's ninetieth anniversary..... 596

KETTERING, CHARLES F.
Brief biography of..... 267
Chairman of Patent Centennial..... 763
Franklin Medal awarded to.....340, 408
Research and social progress..... 211

KIESEL, W. F., JR.
Aluminum connecting rods (D)..... 459

KIMBALL, DEXTER S.
Brief biography of..... 133
Steam engine in nineteenth century..... 84

KLEMIN, ALEXANDER
Rockets through space (BR)..... 523

KLINE, J. E.
Discussion on paper by..... 596

KRIEG, E. H.
Brief biography of..... 603
Superposition..... 562

KUNKLER, L. E.
Brief biography of..... 668
Spraying of molten metal..... 639

L

LABOR CONDITIONS
Great Britain (S)..... 385

LAMME MEDAL
Awarded to Vannevar Bush..... 274

LANGLEY FIELD
Conference at..... 467

LAQUE, F. L.
Brief biography of..... 852
Nickel and nickel-base alloys..... 827

LATHES
Lubrication of modern capstan and turret (S)..... 183

LEAD
Corrosion-resistant..... 793

LEEDS, MORRIS E.
Gantt Medal awarded to..... 466

LEIPZIG (GERMANY) TRADE FAIR
Announcement of..... 206

LEONARD, ROSCOE R.
Tribute to (Ed)..... 2

LETTERS AND COMMENT.....60, 127, 189, 256, 319, 386, 458, 519, 594, 663, 743, 848

LETTER SYMBOLS
Heat and thermodynamics, international conference on..... 610

LICENSING OF ENGINEERS
"Grandfather" clause ..... (Ed) 681, 763

LIGHTING
Artificial (S)..... 188

LIND, HERMAN H.
Machine tools and the economic situation 22

LINDEMANN, W. C.
Photograph of..... 40

LISSMAN, MARCEL A.
Modern dust collector (C)..... 127

LIVERNASH, E. R.
Brief biography of.....65, 398
Discussion on book review by..... 320
"Social Credit" concept..... 35
World depression (BR)..... 375

LOCOMOTIVES
Automatic gear-changing (S)..... 253
Blast pipe, Lemaitre variable (S)..... 453
Connecting rods, aluminum..... 169
High-speed (S)..... 55
Streamlining.....(S) 55, (S) 741

LOCOMOTIVES, FREIGHT
Russian 4–14–4 (S)..... 55

LOUISIANA ENGINEERING SOCIETY
Annual meeting, report of..... 268

LOW, FRED R.
Obituary of..... 201
Tribute to (Ed)..... 144

LUBRICANTS
Refining (S)..... 122
Specifying (C)..... 519
Standard specifications for (C)..... 60
Synthetic (S)..... 248

LUBRICATION
Accounting machines (S)..... 121

LUCKE, CHARLES E.
Brief biography of..... 133
Progress in power—a review..... 95

M

MACHINE INTERFERENCE
Formulas for..... 510

MACHINE PRODUCTION
Multiple-unit, interference of..... 510

MACHINERY
Corrosion-resistant metals for..... 781
Labor-saving, human problems created by 305
Noise reduction in (Ed)..... 409
Quieting..... 713

MACHINERY AND ALLIED PRODUCTS INSTITUTE
Pamphlets on technology and employment (Ed)..... 614

MACHINES
Hydrogen cooling (S)..... 593

MACHINE SHOP PRACTICE
Finishing internal surfaces..... 222
Hot-working aluminum and aluminum alloys (S)..... 662

MACHINE-TOOL INDUSTRY
Great Britain (S)..... 255

MACHINE TOOLS
Developments in 1935 (S)..... 183
Economic situation and..... 22

MACHINING
Internal surfaces..... 222

MAIN AWARD. *See* CHARLES T. MAIN AWARD

MAIN, CHARLES T.
A.S.M.E. Medal presented to.....43, 67
Photograph of..... 39

MANAGEMENT COUNCIL
Business- and Industrial-Management Meetings, plans for..... 766

MAPPING INSTRUMENTS
Stereoscopic..... 154

MARINE ENGINEERING
Rowan-Götaverken system of propulsion (S)..... 380
Steam propulsion (S)..... 313

MARINE ENGINES
Armstrong-Sulzer (S)..... 451
Double-compound steam (S)..... 313
Failures (S)..... 314
Supercharging (S)..... 117

MARKETING RESEARCH
Bibliography on, copies available..... 406

MARKS, LIONEL S.
Origin of "Gas" (C)..... 60

MATSCHOSS, CONRAD
Luncheon for..... 760

MAXWELL, H. L.
Brief biography of..... 851
Cast iron in chemical equipment..... 803

McCUNE, C. A.
Samuel Wylie Miller Memorial Medal awarded to..... 136

McDERMOTT, P. F.
Metallic heat insulation (C)..... 192

McDOWELL, CLYDE S.
Brief biography of..... 398
200-inch telescope..... 345

MEARS, ROBERT B.
Aluminum and its alloys..... 784
Brief biography of..... 851

MECHANICAL CATALOG
Publication of 1936–1937 edition..... 759

MECHANICAL ENGINEERING
Why not read?..... 676

MELVILLE MEDAL
Presentation of..... 43

MEMBERS' PAGE
Dedication by President Batt..... 856
Inauguration of (Ed)..... 769

MEMORIAL NOTICES
Editorial on..... 538

MERCURY-VAPOR
Generating plants..... 560

METALS
Corrosion-resistant.....(Ed) 770, 781
Flow of. *See* FLOW OF METALS
Powdered (S)..... 450
Seizure at elevated temperature..... 165
Temperature effect on..... 165

METALS AND ALLOYS
Wall-thickness sensitivity of (S)..... 740

METALS CORROSION
Resistance to..... 781

METAL SPRAYING
Molten..... 639

METAL WEEK, CLEVELAND
Report of..... 854

METROPOLITAN JUNIOR GROUP
Plans for coming year 759, 855

MICHIGAN MINING-TECH
50th anniversary of..... 676

MICROPORITE
Use for building construction (S)..... 661

MID WEST POWER CONFERENCE
Program for..... 269

MIKINA, STANLEY J.
Junior award to..... 43
Photograph of..... 42

MILLER MEDAL. *See* SAMUEL WYLIE MILLER MEDAL

MILLING
Helicoids (S)..... 53

MILLING CUTTERS
See HELICOIDS, cutters for milling

MOCK, RICHARD M.
Aeronautics, review of (C)..... 596

MONTCLAIR SOCIETY OF ENGINEERS
Engineering Society heads at meeting of. 204

MOORE, ROBERT J.
Brief biography of..... 668
Synthetic resins in varnishes for wood protection..... 621

MOREHEAD MEDAL
Award to D. S. Jacobus..... 855

MORSE, L. S.
Elected president of A.S.R.E..... 70

MOTORS. *See also* ELECTRIC MOTORS
Compressed-air, rotary (S)..... 517

MOTOR VEHICLES
Air conditioning (S)..... 247
Diesel-driven, starting acceleration of (S) 382

N

NAGEL, ADOLPH
Luncheon for..... 760

NATIONAL BUREAU OF ENGINEERING REGISTRATION
Bulletin of information on..... 203

NATIONAL COUNCIL OF STATE BOARDS OF ENGINEERING EXAMINERS
Knoxville, Tenn., meeting of, report on.. 857

NATIONAL MACHINE TOOL BUILDERS' ASSOCIATION
Bulletin on "More Goods for More People" (Ed)..... 614

NATIONAL METAL CONGRESS
Announcement of..... 206

NATIONAL PLANNING
Objectives of..... 631

NAVAL ARCHITECTS AND MARINE ENGINEERS
International meeting, announcement of. 272

NEW YORK STATE BOARD OF EXAMINERS FOR PROFESSIONAL ENGINEERS
Election of officers..... 65

NIAGARA FALLS
Editorial on..... 537
Letter by Herschel on (C)..... 743

NICHOLLS, P.
Water-cooled underfeed stoker (C)..... 258

NICHOLS, J. T.
Discussion on paper by..... 190

NICKEL
Corrosion-resistant..... 827

NICKEL ALLOYS
Corrosion-resistant..... 827

NOISE ABATEMENT
Machinery (Ed) 409, 713
Need for (Ed)..... 277
Progress in (C)..... 458

NOMY
Bearings (S)..... 313

O

OBITUARIES. *See also* A.S.M.E., Members, deaths of..... 201
Hall, James A..... 857
Leonard, Roscoe R. (Ed)..... 2
Low, Fred R..... 201
Patterson, J. B..... 682

OBERG, ERIK
A decade of service (Ed)..... 1
Photograph of..... 45

OCCUPATIONAL INDEX
Announcement of..... 406

OFFICE BUILDINGS
Windowless (S)..... 188

OIL AND GAS POWER
Progress in, 1935..... 95

OIL BURNERS
Domestic..... 705

OIL ENGINES. *See also* MARINE ENGINES, Armstrong-Sulzer

OIL FILTERS
Smith (S)..... 455

OILS
Refining (S)..... 122

ORIFICE-COEFFICIENT REPORT
Publication announcement..... 468

ORIFICES
Fluid flow through two in series.479, (D) 744
Rounded-approach (C)..... 256
Thin-plate (C)..... 319

ORR, C. L.
Brief biography of..... 398
Power and heat problems in the sulphur-mining industry..... 359

ORR, JOHN
Degree conferred on..... 404

ORROK, GEO. A.
Brief biography of..... 133
Elected honorary member of A.S.M.E... 760
James Watt, 1736–1819..... 75

OXYACETYLENE WELDING
Pressure vessels..... 293

OXYGEN
Generation (S)..... 57

P

PARDOE, W. S.
Venturi and weir measurements (C)..... 60

PARISH, WILLIAM F.
Specifying lubricants (C)..... 519

PARKER, JAMES W.
Photograph of..... 40

PARLETT, R. C.
Metallic heat insulation (C)..... 190

PARSONS CHARLES
Turbine development..... 683

PATENT CENTENNIAL
Plans for celebration of..... 763

PATTERSON, J. B.
Death of (Ed)..... 682

PEEK, R. L., JR.
Modern tolerance requirements and their scientific determination (C)..... 848

PEETS, W. J.
Factory equipment (BR)..... 64

PERRONE, PIO
A.S.M.E. representative at Rome Educational Congress..... 855

PETERS, WILLIAM F., JR.
Suspended solids in foaming and priming (C)..... 746

PETROLEUM EXPOSITION
Tulsa, Okla., May 16–23, 1936, announcement of..... 70

PETROLEUM INDUSTRY
Training workers for..... 352

PHOTOELASTIC MATERIALS
New types of (C)..... 192

PHOTOELASTIC STUDIES
Stress concentrations..... 485

PHOTOGRAPHY
Aerial..... 151

PHOTOGRAPHY EXHIBIT
Announcement of..... 754

PIGOTT, R. J. S.
Biography of..... 528
Photograph of..... 526

PIONEERS
On new frontier..... 3

PIPING
Steam, developments in..... 559

PISTONS
Automobile-engine, alloy steel (S)..... 518
Light alloy (S)..... 182

PLASKON
Properties and applications of (S)..... 116

PLASTER MODELS
Predicting strength of structures from tests of (S)..... 187

PLINKE, G. W.
Brief biography of..... 331
Gas welding of Class-1 pressure vessels. 293

POLYTECHNIC INSTITUTE OF BROOKLYN
Heating, ventilating, and air-conditioning courses..... 612

POTASH MINES
New Mexico, mechanization of..... 418

POTTER, A. A.
American Engineering Council president 135
Photograph of..... 134

POWDERED FUEL. *See* PULVERIZED FUEL

POWELL, JAMES A.
Brief biography of..... 603
Design trends in 500–800-lb steam plants 573

POWER
Electrical, costs to consumers..... 539
Interchange of..... 540
Progress in, 1935..... 95

POWER CONFERENCE
Announcement of..... 208

POWER COSTS
Steam..... 560

POWER EXPOSITION
Plans for..... 674

POWER GENERATION
MacKirdy system of (S)..... 252

POWER PLANT ENGINEERING
Aerodynamics of fuel motion in furnaces (S)..... 315
Pumping hot water against high pressures (S)..... 53
Worksop scheme (S)..... 251

POWER PLANTS. *See also* STEAM POWER PLANTS
American, development and performance of..... 539
Low-pressure, superimposing high-pressure turbine on (S).....53, 54
Port Washington, Milwaukee Elec. Ry & Light Co..... 697
Superposed 562, 585
Superposed, data on (tables).....563, 567
Thermal performance of..... 544
Valves for high-pressure piping (S)..... 518
West End, Cincinnati..... 585

POWER STATIONS
Developments in..... 546

POWER TEST CODES COMMITTEE
October meeting of..... 758

PRENTICE, D. B.
Honorary degree by Lafayette College... 855

PRESCOTT, FORD L.
Brief biography of..... 199
Military aircraft engines of the future .....157, (D) 319

PRESIDENT'S PAGE
.....(Ed) 141, 198, 266, 397

PRESSURE VESSELS
Laminated-wall (S)..... 186
Welded, radiographic inspection of..... 442
Welding, fusion, rules for..... 331
Welding, gas..... 293

PROBABILITY
Editorial on..... 473

PROCESS INDUSTRIES
Rural stability and..... 427

PRODUCTION
Distribution and (C)..... 521

PROFESSIONAL ENGINEERS' COMMITTEE ON UNEMPLOYMENT
Annual report of..... 271

PROFESSIONAL PRACTICE
A.S.M.E. Code of Ethics for Engineers.. 758

PULLEYS
Rope (S)..... 379

PULVERIZED FUEL
Combustion (S)..... 50
Distribution of (S)..... 311

PUMICE
Properties and uses of (S)..... 49

PUMPS
Centrifugal, efficiencies of (S)..... 383
Cox rotary displacement (S)..... 252
Northey rotary (S)..... 316
Water hammer in valves (S)..... 316

PURCELL, CHARLES HENRY
Brief biography of..... 65
Photograph of..... 39
San Francisco-Oakland Bay Bridge..... 7

Q-R

QUANTUM STATISTICS
Application to thermal radiation..... 490

RACKHAM ENGINEERING FOUNDATION
Incorporation of..... 536

RADIATION
Thermal, Bose's quantum statistics applied to Planck's formula..... 490

RAIL MOTOR CARS
Fluid drives on (S)..... 52

RAILROAD TRAINS
Steam-powered (Ed)..... 769

RAILROAD TRANSPORTATION
Aerodynamics in.....355, (E) 344

RAUTENSTRAUCH, WALTER
Brief biography of..... 668
Planning for economic performance..... 631

RAYON TECHNICAL CONFERENCE
Plans for..... 760

REAMING MACHINES. *See* BORING MACHINES

REFINERIES. *See* SUGAR REFINERIES

REFRACTORY MATERIALS
Emissivities of..... 291

REFRIGERATING MACHINERY
Frigibloc (S)..... 454

REFRIGERATING PLANTS
Reversed (S) ... 455

REFRIGERATION
Direct-expansion air coolers (S) ... 384
Low temperatures, physics of (S) ... 454
Vacuum (S) ... 662

RESEARCH
Social progress and ... 211
Wire rope (S) ... 311

RESEARCH COMMITTEES
Support by industry ... 760

RESPIRATORS
Uses and limitations of ... 171

REYNOLDS' NUMBER
Significance and use of ... 625

RICE, CALVIN W.
Memorial lecture ... 411

RIVETING MACHINES
Silent (S) ... 847

ROBINSON, ERNEST L.
Creep of steels (C) ... 194

ROE, JOSEPH W.
Brief biography of ... 133
Matthew Boulton, 1728–1809 ... 80
Oliver Evans (BR) ... 262

ROE, R. C.
Furnace bottoms for tapping molten ash (D) ... 390

ROGERS, F. H.
Closure to discussion of paper by (C) ... 190
Discussion on paper by ... 189

ROME TECHNICAL EDUCATIONAL CONGRESS
A.S.M.E. representative at ... 855

ROTARY ENGINES
Compressed air (S) ... 517

ROYCE, JOSIAH
Philosophy of (Ed) ... 143

RUST PREVENTION
Duraspray process (S) ... 116

S

SACKETT, R. L.
Photograph of ... 40

SAFETY CONFERENCE
Announcement of ... 208

ST. CLAIR, LEO J.
Brief biography of ... 747
Maintenance and use of cemented carbide tools ... 725

SAMUEL WYLIE MILLER MEDAL
Awarded to Hobart ... 858
Awarded to McCune ... 136

SAVILLE, THORNDIKE
Appointed dean, College of Engineering, New York University ... 408

SAWYER, H. T.
Brief biography of ... 331
Indicator for high-speed engines ... 283

SAYER, HENRY D.
Brief biography of ... 133
Occupational diseases ... 103

SCHAEFER, ALBERT A.
Brief biography of ... 852
Foreign political systems (BR) ... 844

SCHNEIDER, A. W.
Brief biography of ... 267
Finishing internal surfaces ... 222

SCHRECK, H.
Diesel engineering (BR) ... 326

SCHWARTZ, H. A.
Honorary degree conferred upon ... 468

SCIENCE
Award for book on ... 468
Learning to live with (Ed) ... 682

SCOTT, CHARLES F.
Chairman of E.C.P.D. ... 763
Honorary member of Connecticut Society of Civil Engineers ... 208

SECURITY
Social ... 145

SENNER, ARTHUR H.
Brief biography of ... 747
Domestic oil burners ... 705

SENSITIVITY
Wall-thickness (S) ... 740

SHAFTS
Flexible equipment (S) ... 452

SHARP, R. E. B.
Closure to discussion of paper by (C) ... 190
Discussion on paper by ... 189

SHELLENBERGER, R.
Brief biography of ... 65
Discussion on paper by ... 387

SHELLENBERGER, R. (*continued*)
Furnace bottoms for tapping ash in the molten state ... 30

SHEPARD, GEORGE H.
The future is in doubt (C) ... 594

SHOUDY, WILLIAM A.
Photograph of ... 40

SHUTE, JOHN
Brief biography of ... 668
Federal social-security plan (BR) ... 447
Streamlining the dismal science (BR) ... 641

SILLCOX, L. K.
Brief biography of ... 398
Statistical methods (BR) ... 326
Streamlining—facts and fancies ... 355

SMITH, A. R.
Brief biography of ... 851
Steamotive ... 771

SMITH, E. DILLON
Economics and statistics (BR) ... 195
Foundations of Marxism (C) ... 320
Industrial administration (BR) ... 462
Liberal tradition (BR) ... 395
Transportation (BR) ... 670

SMITH, EARL B.
Engineering valuation (BR) ... 669

SMITH, ED S., JR.
Thin-plate orifices (C) ... 319

SMITH, HOWARD I.
Brief biography of ... 464
Mechanization of the potash mines in New Mexico ... 418

SMOKE-ABATEMENT MEETING
F. D. Wilson to address ... 678

SOCIAL PROGRESS
Research and ... 211

SOCIAL SCIENCES
Nature of ... 515

SOCIAL SECURITY
Editorial on ... 474
Correspondence on ... 594

SOCIAL WELFARE
Engineers and ... 145

SOCIETY FOR THE PROMOTION OF ENGINEERING EDUCATION
Middle Atlantic Section, New York meeting, announcements of ... 766, 858
Officers elected ... 534
Vote on engineering degrees ... 404

SOLAKIAN, A. G.
Closure to discussion on paper by ... 193
Discussion on paper by ... 192

SOLAR ENERGY
Air conditioning with ... 369

SOUTHERN INDUSTRIAL SHOW
Announcement of ... 270

SPELLER, F. N.
Brief biography of ... 851
Corrosion-resistant metals ... 781

SPERRY, ELMER A., JR.
Edward Longstreth Medal awarded to ... 308

SPINNING
Ring, spindle speeds and yarn tension in (S) ... 58
Ring, variable-speed drive of frames (S) ... 59

SPRINGS
Surge in (S) ... 116

STAINLESS IRON. *See* STAINLESS STEEL

STAINLESS STEEL
Corrosion-resistant ... 823

STAKHANOVISM
Editorial on ... 209

STANDARDIZATION, INDUSTRIAL
Lectures by Gaillard on ... 678

STEAM
Recrudescence of (Ed) ... 769

STEAM ENGINES
"Kinetic motor" ... 518
Nineteenth century development of ... 84

STEAM GENERATING PLANTS
Developments in ... 547

STEAM GENERATORS. *See* "STEAMOTIVE"

STEAM LOCOMOTIVES
See Locomotives

"STEAMOTIVE"
Development and test of ... 771

STEAM POWER
Progress in, 1935 ... 95

STEAM POWER PLANTS. *See also* "STEAMOTIVE"
Design trends in ... 573
Developments in ... 542, 547
Efficiency (S) ... 123
Equipment (S) ... 380
Performance data (table) ... 549
Sugar-refinery ... 577

STEAM TURBINES
Developments by Westinghouse Machine Company ... 683
Developments in ... 556
Tests of a 36,000-kw (S) ... 742
Governors (S) ... 316
Superposition ... 54
Tate valve gear (S) ... 380
Washing (S) ... 54

STEAM WASHERS
Developments in ... 549

STEEL
Creep of (C) ... 194
Subcutaneous effects during the scaling of (S) ... 117
Weldability of high-tensile (S) ... 188

STEELE, SYDNEY
Rounded-approach orifices (C) ... 256

STEEL PLATE
Oxyacetylene cutting, effects of ... 363

STEVENS ENGINEERING CAMP
Economic meeting at ... 274

STEVENSON, G.
Steam automotive plant (C) ... 319

STOKERS
Underfeed, water-cooled (C) ... 257

STOUGHTON, BRADLEY
Appointed dean of engineering, Lehigh University ... 408

STRESS CONCENTRATIONS
Photoelastic studies of ... 485

STRESSES
Analysis, distribution method of (S) ... 247
Combined alternating (S) ... 179
Fatigue, in light structures ... 250

STROBOSCOPES
"Relator" (S) ... 125

STROWGER, E. B.
Turbine for Wheeler Dam (C) ... 189

STUART, MILTON C.
Brief biography of ... 525
Discussion on paper by ... 744
Fluid flow through two orifices in series ... 479

STUDENT BRANCH BULLETIN
Incorporation in Mechanical Engineering ... (Ed) 613, 675

STUDENT BRANCHES
Meetings of ... 675, 761, 859

STUDENT PROGRAM
A.S.M.E. annual meeting ... 761

STUDENTS
A.S.M.E. Junior Membership for ... 761

SUGAR CRYSTALS
Formation and growth in vacuum pans ... 99

SUGAR REFINERIES
Steam power plant for, operating experience ... 577

SULPHUR MINING
Power and heat problems in ... 359

SUPERCHARGING
Engines (S) ... 117

SUPERHEATERS
Developments in ... 549

SUPERPOSITION
Power plants ... 562, 585

SURFACE FINISHES
Desired characteristics of (D) ... 596

SWAIN, PHILIP W.
Flow through orifices in series (C) ... 745

SWASEY, AMBROSE
Announcement of Hoover Medal award to 754

SWITZER, F. G.
Photoelastic materials (C) ... 192

SYKES, W. E.
Brief biography of ... 464
Gear noise—causes and corrections ... 423

T

TALLEY, B. B.
Aerial photography ... 151
Brief biography of ... 199

TAR
Motor spirit from (S) ... 117

TELESCOPES
Editorial on ... 344
200-inch, California Institute of Technology ... 345

TEMPERATURE RESEARCH FOUNDATION
Announcement of ... 406

TEMPLIN, R. L.
Aluminum connecting rods ... 169
Brief biography of ... 199
Discussion on paper by ... 458

TEXAS TECHNOLOGICAL COLLEGE
Welding conference to be held at..... 136

TEXTILES
Spinning. *See* SPINNING

THERMODYNAMICS
Auxiliaries for calculations (S)..... 456
i-s diagram for water vapor up to 2800 C with consideration of dissociation (S)... 187
Plank equation for critical range (S)..... 384

THIELSCHER, H. G.
Furnace bottoms for tapping molten ash (D)..... 391

THOMSON, ELIHU
Honored by Detroit Section, American Welding Society..... 855

THRESHER, B. ALDEN
Planning—three viewpoints..... 114

THURSTON, ROBERT HENRY
Seventh lecture on relation between engineering and science..... 7

TIME-SERIES CHARTS
Tentative draft of announced..... 536

TIMOSHENKO, STEPHEN
Photograph of..... 42
Warner Medal presented to..... 43

TODD, JAMES M.
Biography of..... 527
Photograph of..... 526

TOLERANCES
Determination of..... 411, 848

TOOLS
Cemented carbide..... 725

TOOL STEEL
Hardening characteristics (S)..... 313

TÖRNEBOHM, HILDING
Brief biography of..... 464
Discussion on paper by..... 848
Modern tolerance requirements and their scientific determination.....411, (C) 849
Photograph of..... 411

TÖRNEBOHM AND KAMO
Luncheon for..... 472

TOWNE, HENRY ROBINSON
Eighth lecture on engineering and economics..... 3

TRANSMISSIONS
Hydraulic..... 52

TUBES
Bending (S)..... 517

TUCKER, DONALD S.
Brookings reports (BR)..... 177

TUCKER, S. MARION
Photograph of..... 43

TURBINES, STEAM. *See* STEAM TURBINES

TURBOGENERATORS
Availability (Tables).....569, 572
Brown, Boveri, tests of (S)..... 452

TURBULENCE
Measurements of (S)..... 58

TURNBULL, WILLIAM F.
Production and distribution (C)..... 521

U

UNEMPLOYMENT
Production and (Ed)..... 278

UNFIRED PRESSURE VESSELS
Proposed revision of A.S.M.E. code for. 667

UNITED ENGINEERING TRUSTEES, INC.
Annual report of..... 65
Officers elected by.....136, 858

U. S. BUREAU OF LABOR STATISTICS
Survey of engineering profession..... 505

UNIVERSITY OF ILLINOIS
New air-conditioning apparatus..... 761

UNIVERSITY OF TENNESSEE
Dedication of Ferris Hall..... 860

UNWIN MEMORIAL
Appeal for funds for..... 404

V

VALVES AND FITTINGS
Standard marking system for..... 764

VAN TONGEREN, HERMAN
Discussion on paper by..... 127

VARNISHES
Wood preservation..... 621

VAUCLAIN, SAMUEL M.
Eightieth birthday..... 603

VENTILATION
Exhaust systems..... 109

VENTURI METERS
Coefficients of (C)..... 60

VIBRATION
Airplane propeller crankshafts..... 215

VINCENT, E. T.
Brief biography of..... 331
Design of lightweight compression-ignition engines..... 286

VISCOSITY
Water and steam (S)..... 385

VITELES, MORRIS S.
Brief biography of..... 331
How technological changes affect employees..... 302

VOCATIONAL TRAINING
Petroleum industry..... 352

"VON HINDENBURG"
First trip to United States (E)..... 343

VOSE, R. W.
Photoelastic materials (C)..... 192

W

WALLACE, L. W.
Early wind-tunnel studies for the railroads (C)..... 598

WARNER MEDAL. *See* WORCESTER REED WARNER MEDAL

WARREN, G. B.
Steam-turbine testing (C)..... 663

WATER HAMMER
Graphical solution for (S)..... 50
Pump valves (S)..... 316

WATER POWER
Developments in..... 540

WATERWALLS
Boiler, developments in..... 551

WATT, JAMES
Bicentenary of, papers presented at 75, 80, 84, 91
Bicentennial celebration, program for.... 66
Life of..... 75
Symbol of the industrial age..... 91
Two hundred years of Watt (Ed)..... 1

WEBRE, ALFRED L.
Brief biography of..... 133
Formation and growth of sugar crystals in vacuum pans..... 99

WELDING
Electrodeposited iron (S)..... 318
Forgeability of welded joints (S)..... 126
High-tensile steels (S)..... 188

WELDING (*continued*)
Machinery failure and (S)..... 126
Radiographic inspection of..... 442
Steel, gas absorption in (S)..... 255
Molecular shock (S)..... 742

WELDING, OXYACETYLENE. *See* OXYACETYLENE WELDING

WELDING PRACTICE SYMPOSIUM
Announcement of..... 470

WELDING PRACTICE SYMPOSIUM
Program for..... 672

WESTERN SOCIETY OF ENGINEERS
Sponsors of graduate courses for engineers..... 678

WESTINGHOUSE, GEO.
Portrait of..... 680

WHEELER DAM
Turbine for (S)..... 189

WIKANDER, OSCAR R.
Melville Medal presented to..... 43
Photograph of..... 42

WILKINS, R. A.
Brief biography of..... 852
Copper and copper-base alloys..... 809

WILLARD, A. C.
F. Paul Anderson Gold Medal awarded to 206

WILLIAMS, G. LOWELL
Main Award to..... 43

WILLSON, CORWIN
Fabricated housing (C)..... 127

WIND POWER
Antarctic (S)..... 185

WIND TUNNELS
Early use by railroad industry (C)..... 598

WINHOLT, EINAR
Usurpation of the term engineer (C)..... 594

WIRE ROPE
Research on (S)..... 311

WOMEN WORKERS
Editorial on..... 344

WOOD
Combustion tests of (S)..... 180

WOOD PRESERVATION
Synthetic resins in varnishes for..... 621

WOOLRICH, W. R.
Appointment as dean of engineering, at University of Texas..... 680
Brief biography of..... 464
Process industries and rural stability.... 427

WORCESTER REED WARNER MEDAL
Presentation of..... 43

WORLD POWER CONFERENCE
Washington, D. C., Sept., 1936, plans for 337, 466, 608

WRIGHT, W. R.
Brief biography of..... 525
Machine interference..... 510

WYMAN, L. L.
Discussion on paper by..... 194

X-Y-Z

YARNALL, D. ROBERT
Brief biography of..... 525
Discussion on paper by..... 744
Fluid flow through two orifices in series.. 479

YELLOTT, JOHN I.
Flow through orifices in series (C)..... 744

ZIMMERMAN, J. H.
Brief biography of..... 398
Flame-cutting steel plate..... 363

ZINC
Corrosion-resistant..... 799